



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/721,181	11/26/2003	Shinichiro Arakawa	008312-0306889	6561

909 7590 08/29/2006

PILLSBURY WINTHROP SHAW PITTMAN, LLP
P.O. BOX 10500
MCLEAN, VA 22102

EXAMINER

PATEL, GAUTAM

ART UNIT PAPER NUMBER

2627

DATE MAILED: 08/29/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/721,181

Applicant(s)

ARAKAWA, SHINICHIRO

Examiner

Gautam R. Patel

Art Unit

2627

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☐ Responsive to communication(s) filed on ____.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-11 is/are pending in the application.
- 4a) Of the above claim(s) ____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) ____ is/are allowed.
- 6) ☒ Claim(s) 1-11 is/are rejected.
- 7) ☐ Claim(s) ____ is/are objected to.
- 8) ☐ Claim(s) ____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on ____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. ____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. ____. |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date <u>3/3/05;9/7/05</u> . | 6) <input type="checkbox"/> Other: ____. |

DETAILED ACTION

1. Claims 1-11 are pending for the examination.

Priority

2. Receipt is acknowledged of papers submitted under 35 U.S.C. § 119(a)-(d), which papers have been placed of record in the file.

Specification

3. The disclosure is objected for following reasons.
The title of the invention is neither precise nor descriptive. A new title is required which should include, using twenty words or fewer, claimed features that differentiate the invention from the Prior Art. It is recommended that the title should reflect the gist of or the improvement of the present invention.
Correction is required.

Claim Rejections - 35 U.S.C. § 102

4. The following is a quotation of the appropriate paragraphs of 35 U.S.C. § 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless --
e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

Claims 1-11 are rejected under 35 U.S.C. § 102(e) as being anticipated by Park et al., US. patent 6,714,496 (hereafter Park).

As to claim 1, Park discloses the invention as claimed [see Figs. 1 & 5] including an irradiation unit, a reflected light detection unit, a focus control unit, a tilt amount detection unit, a tilt correction unit and a recording unit, comprising:

an irradiation unit [fig. 5, unit 20] configured to irradiate a recording surface of a disk [fig. 5, unit 1] with a light beam;

a reflected light detection unit [inherently present in unit 20] configured to detect reflected light of the light beam irradiated by the irradiation unit;

a focus control unit configured to control focus on the basis of a focus control signal generated from the reflected light detected by the reflected light detection unit;

a tilt amount detection unit configured to specify a plurality of regions with different radial positions on the disk, and to detect tilt amounts of respective regions with respect to an optical axis of the light beam irradiated by the irradiation unit on the basis of the focus control signal;

a tilt correction unit configured to calculate tilt correction values for respective regions in accordance with the tilt amounts of the respective regions detected by the tilt amount detection unit, and correct a tilt of the optical axis with respect to a predetermined region on the basis of the tilt correction value corresponding to the predetermined region; and

a recording unit [fig. 5, unit 20] configured to record data on the predetermined region while the tilt of the optical axis with respect to the predetermined region is corrected by the tilt correction unit [col. 2, line 65 to col. 3, line 62].

5. The aforementioned claim 2, recites the following elements, inter alia, disclosed in Park:

a reproduction unit [fig. 5, unit 20] configured to reproduce data from the predetermined region while the tilt of the optical axis with respect to the predetermined region is corrected by the tilt correction unit [col. 2, line 65 to col. 3, line 62].

6. The aforementioned claim 3, recites the following elements, inter alia, disclosed in Park:

the tilt amount detection unit detects a tilt amount of the optical axis with respect to a region bounded by two positions with different radial distances on the disk on the basis of a difference between bias components of two focus control signals corresponding to the two positions [col. 2, line 65 to col. 3, line 62].

7. The aforementioned claim 4, recites the following elements, inter alia, disclosed in Park:

a recording control unit configured to correct, when data is continuously recorded on first and second, successive regions, a tilt of the optical axis with respect to the first region using the tilt correction unit, record data by tracing the light beam from the leading end to the trailing end of the first region, temporarily interrupt recording, return tracing of the light beam to the first region, correct a tilt of the optical axis with respect to the second region using the tilt correction

Art Unit: 2627

unit while tracing the light beam from the first region toward the leading end of the second region, and record data by tracing the light beam from the leading end to the trailing end of the second region [col. 2, line 65 to col. 3, line 62].

8. The aforementioned claim 5, recites the following elements, inter alia, disclosed in Park:
a reproduction control unit configured to correct, when data is continuously reproduced from first and second, successive regions, a tilt of the optical axis with respect to the first region using the tilt correction unit, reproduce data by tracing the light beam from the leading end to the trailing end of the first region, temporarily interrupt reproduction, return tracing of the light beam to the first region, correct a tilt of the optical axis with respect to the second region using the tilt correction unit while tracing the light beam from the first region toward the leading end of the second region, and reproduce data by tracing the light beam from the leading end to the trailing end of the second region [col. 2, line 65 to col. 3, line 62].

9. The aforementioned claim 6, recites the following elements, inter alia, disclosed in Park:
specifying a plurality of regions with different radial positions on a disk, and detecting tilt amounts of the respective regions with respect to an optical axis of a light beam on the basis of a focus control signal used to just-focus the light beam on a recording surface of the disk;

calculating tilt correction amounts for the respective regions in accordance with the tilt amounts of the respective regions; correcting a tilt of the optical axis with respect to a predetermined region on the basis of the tilt correction amount corresponding to the predetermined region; and

recording data on the predetermined region while the tilt of the optical axis with respect to the predetermined region is corrected [col. 2, line 65 to col. 3, line 62].

10. The aforementioned claim 7, recites the following elements, inter alia, disclosed in Park:
the tilt amounts of the respective regions are detected using a method of detecting a tilt amount of the optical axis with respect to a region bounded by two positions with different radial distances on the disk on the basis of a difference between bias components of two focus control signals corresponding to the two positions [col. 2, line 65 to col. 3, line 62].

11. The aforementioned claim 8, recites the following elements, inter alia, disclosed in Park:

when data is continuously recorded on first and second, successive regions, correcting a tilt of the optical axis with respect to the first region; recording data by tracing the light beam from the leading end to the trailing end of the first region; temporarily interrupting recording; returning tracing of the light beam to the first region, and correcting a tilt of the optical axis with respect to the second region while tracing the light beam from the first region toward the leading end of the second region; and recording data by tracing the light beam from the leading end to the trailing end of the second region [col. 2, line 65 to col. 3, line 62].

12. The aforementioned claim 9, recites the following elements, inter alia, disclosed in Park:

specifying a plurality of regions with different radial positions on a disk, and detecting tilt amounts of the respective regions with respect to an optical axis of a light beam on the basis of a focus control signal used to just-focus the light beam on a recording surface of the disk; calculating tilt correction amounts for the respective regions in accordance with the tilt amounts of the respective regions; correcting a tilt of the optical axis with respect to a predetermined region on the basis of the tilt correction amount corresponding to the predetermined region; and reproducing data from the predetermined region while the tilt of the optical axis with respect to the predetermined region is corrected [col. 2, line 65 to col. 3, line 62].

13. The aforementioned claim 10, recites the following elements, inter alia, disclosed in Park:

the tilt amounts of the respective regions are detected using a method of detecting a tilt amount of the optical axis with respect to a region bounded by two positions with different radial distances on the disk on the basis of a difference between bias components of two focus control signals corresponding to the two positions [col. 2, line 65 to col. 3, line 62].

14. The aforementioned claim 11, recites the following elements, inter alia, disclosed in Park:

when data is continuously reproduced from first and second, successive regions, correcting a tilt of the optical axis with respect to the first region; reproducing data by tracing the light beam from the leading end to the trailing end of the first region; temporarily interrupting reproduction; returning tracing of the light beam to the first region, and correcting a tilt of the optical axis with respect to the second region while tracing the light beam from the first region

Art Unit: 2627

toward the leading end of the second region; and reproducing data by tracing the light beam from the leading end to the trailing end of the second region [col. 2, line 65 to col. 3, line 62].

Other prior art cited

15. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

- a) Hayashi et al. (US. Patent 6363039).
- b) Shimamoto et al. (US. patent 6754145).

Contact information

16. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Gautam R. Patel whose telephone number is 571-272-7625. The examiner can normally be reached on Monday through Thursday from 7:30 to 6.

The appropriate fax number for the organization (Group 2650) where this application or proceeding is assigned is 571-273-8300.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Mr. Dwayne Bost, who can be reached on (571) 272-7023.

Any inquiry of a general nature or relating to the status of this application should be directed to the Electronic Business Center whose telephone number is 866-217-9197 or the USPTO contact Center telephone number is (800) PTO-9199.



**GAUTAM R. PATEL
PRIMARY EXAMINER**

Gautam R. Patel
Primary Examiner
Group Art Unit 2627

August 25, 2006